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SOLAR-TERRESTRIAL OBSERVATIONS DURING STIP INTERVAL XV (12-21 FEBRUARY, 1984)

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S. R. Kane, Space Sciences Laboratory, University of California, Berkeley

Several large solar flares occurred during this period, the most significant being the flare on 16 February (0900 UT). Although this flare occurred about 40° behind the west limb of the sun, both the occulted and unocculted hard X-ray emission was observed by instruments aboard spacecraft. The occulted radio emission and terrestrial effects were observed by several ground-based observatories. The flare produced energetic particles with energies up to several GeV. In spite of the location of the flare far behind the west limb, the high energy particles produced a prompt and rapid increase in the ground-level neutron monitor rates. Observations of the solar-terrestrial effects of this and other flares during STIP interval XV are summarized and some of the implications of these new observations with respect to the acceleration and propagation of energetic solar particles and the role of flare-generated shocks will be discussed.